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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,091	07/22/2003	Takahiro Takemoto	NECA 20.522	8769
26304	7590	10/19/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP			PHAM, TAMMY T	
575 MADISON AVENUE			ART UNIT	
NEW YORK, NY 10022-2585			PAPER NUMBER	

2675

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/625,091

Applicant(s)

TAKEMOTO, TAKAHIRO

Examiner

Tammy Pham

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 3-6, 8-11, 13-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara et al. (US Patent No: 6,545,653 B1) in view of Inage et al. (6,489,941 B1).

As for claims 1, 6, 11 and 16; Takahara teaches of an apparatus and method consisting of an active-matrix addressing LCD device (81) comprising: a panel (81) including an active-matrix substrate (81), an opposite substrate, and a liquid crystal layer sandwiched by the active-matrix substrate (81) and the opposite substrate; the active-matrix substrate (81) having data lines, scanning lines that intersect with the data lines at intersections, pixels (101) arranged near the respective intersections, and TFTs (86) arranged as switching elements (143) for the respective pixels (101); a source driver circuit (33) for driving the data lines; a gate driver circuit (38) for driving the scanning lines in Fig. 3 and in column 11, lines 22-36. The figure and the section teaches of the basic components that usual make up a LCD device and are self-explanatory.

Takahara goes on to teach of a controller circuit (31) for controlling the source driver (33) and the gate driver (38) in column 11, lines 37-46. The selection circuit acts as the controller circuit since both elements performs the same function in outputting control signals to the source and gate drivers.

Takahara goes on to teach of a polarity of a data voltage applied to each of the pixels (101) by way of a corresponding one of the data lines and a corresponding one of the TFTs (86) is inverted in every set of two or more horizontal synchronizing periods by the controller circuit (31) in Fig. 12-13 and in column 20, lines 38-45. The figures show that with every two lines, the voltage polarity is inverted. The section teaches that the voltage is being sent to the pixels and as discussed above, the controller circuit sends signals to the drivers.

What Takahara does not teach is of a source driver being able to have a resetting means.

Inage teaches that the source driver has a resetting means for resetting the data voltages outputted by the source driver circuit in a blanking period of each of the horizontal synchronizing periods of the set in column 5, lines 2-21. The section teaches that the source driver is able to have a means of resetting.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to associate the resetting method with the source driver as taught by Inage with the active-matrix device of Takahara in order to shorten the response time of the LCD device (see Inage: column 4, lines 50-60).

As for claims 3, 8, 13 and 18; Takahara teaches that the device according to claim 1, wherein each of the data voltages alternately has a positive value or a negative value in the

polarity inversion period as discussed above in dealing with claim 1 and in Fig. 12-13 and in column 20, lines 38-45.

Takahara also goes on to teach of the resetting means is controlled in such a way that each of the data voltages will reach a middle point value between the positive value and the negative value after the resetting operation is completed. The term “reset” implies that the voltage is being set back to zero, hence this can be considered the middle point between a positive and negative value.

As for claims 4, 9, 14 and 19; Takahara teaches that the device according to claim 1, wherein the polarity of the data voltages supplied by way of the data lines is alternately inverted in every set of the two horizontal synchronizing periods and in every vertical synchronizing period within every frame period, thereby driving the device by a 2-H dot inversion method in Fig. 14-15 and in column 20, lines 46-51.

As for claims 5, 10, 15, and 20; Takahara teaches that the device according to claim 1, wherein the polarity of the data voltages supplied by way of the data lines is alternately inverted in every set of the two horizontal synchronizing periods within every frame period, thereby driving the device by a 2-H line inversion method in Fig. 12-13 and in column 20, lines 43-45.

2. Claims 2, 7, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara et al. (US Patent No: 6,545,653 B1) in view of Inage et al. (6,489,941 B1) and Goto et al. (US Pub. No: 2002/0171613 A1).

As for claim 2, Takahara teaches of a device according to claim 1 and Inage teaches of a resetting means associated with the source driver.

What Takahara nor Inage teaches is of a latch signal being associated with the resetting process.

Goto teaches that the device according to claim 1, wherein the resetting means performs its resetting operation with reference to a latch signal supplied to the source driver circuit by the controller circuit in Fig. 5 and in section [0125].

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include a latch signal as taught by Goto with the apparatus of Takahara and Inage in order to ensure high speed performance (see Goto: section [0020]).


### *Conclusion*

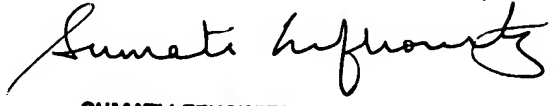
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy Pham whose telephone number is (571) 272-7773. The examiner can normally be reached on 8:00-5:30 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tammy Pham  
October 15, 2005

  
**SUMATI LEFKOWITZ**  
**SUPERVISORY PATENT EXAMINER**